Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. - 20. (canceled)

21. (new) A method for determining a sequence in which microstructures are to be processed, the method comprising:

receiving reference data which represent locations of microstructures to be processed, wherein adjacent groups of microstructures comprise clusters including edge clusters which contain microstructures located near travel limits of a motor-driven stage, and the motor-driven stage moves the microstructures relative to a laser beam;

dividing a cluster fragment from each edge cluster, each of the cluster fragments having a respective direction of movement; and

sorting the clusters and cluster fragments to obtain data which represent a substantially optimum direction of movement sequence in which the microstructures are to be processed to increase throughput.

22. (new) The method of claim 21 further comprising coalescing adjacent groups of microstructures into the clusters of microstructures.

23. (new) The method of claim 21 wherein velocity of movement of the stage at the cluster fragments is an integral fraction of velocity of movement of the stage at the clusters.

24. (new) The method of claim 21 wherein the step of sorting is based on energy expended in at least one coil of at least one motor in response to motor commands.

25. (new) The method of claim 21 wherein each of the cluster and cluster fragments has a plurality of possible processing directions.

26. (new) The method of claim 21 wherein the step of sorting includes the steps of selecting a substantially optimum cluster or cluster fragment to be initially processed at the site, then determining a plurality of possible sequences for processing the remaining clusters and cluster fragments and selecting a substantially optimum sequence from the plurality of possible sequences.

27. (new) The method of claim 21 wherein the microstructures are located on dice of a wafer.

28. (new) The method of claim 21 wherein dividing includes identifying a first microstructure subjected to a speed constraint less than a pre-determined maximum processing velocity.

29. (new) The method of claim 21 wherein the motor driven stage is driven at a maximum processing velocity, and wherein a slower processing velocity is the maximum velocity divided by an integer, wherein a substantially constant laser q-rate is maintained.

30. (new) The method of claim 21 wherein dividing includes an algorithm for link sorting.

31. (new) The method of claim 21 the method further comprising positioning the laser beam and the motor-driven stage.

32. (new) A subsystem for determining a sequence in which microstructures are to be processed, the subsystem comprising:

means for receiving reference data which represent locations of microstructures to be processed, wherein adjacent groups of microstructures comprise clusters including edge clusters which contain microstructures located near travel limits of a motor-driven stage, and the motor-driven stage moves the microstructures relative to a laser beam;

means for dividing a cluster fragment from each edge cluster, each of the cluster fragments having a respective direction of movement; and

means for sorting the clusters and cluster fragments to obtain data which represent a substantially optimum direction sequence in which the microstructures are to be processed to increase throughput.

33. (new) The subsystem of claim 32 further comprising means for coalescing adjacent groups of microstructures into the clusters of microstructures.

34. (new) The subsystem of claim 32 wherein velocity of movement of the stage at the cluster fragments is an integral fraction of velocity of movement of the stage at the clusters.

35. (new) The subsystem of claim 32 wherein the means for sorting sorts based on energy expended in at least one coil of at least one motor in response to motor commands.

36. (new) The subsystem of claim 32 wherein each of the clusters and cluster fragments has a plurality of possible processing directions and wherein the means for sorting includes means for determining a substantially optimum direction in which to process the microstructures.

37. (new) The subsystem of claim 32 wherein the means for sorting includes means for selecting a substantially optimum cluster or cluster fragment to be initially processed at the site, and for determining a plurality of possible sequences for processing the remaining clusters and cluster fragments.

38. (new) The subsystem of claim 32 wherein the microstructures are located on dice of a wafer.

39. (new) The subsystem of claim 38 wherein the microstructures are conductive lines of the dice.

40. (new) The subsystem of claim 38 wherein the dice are semiconductor memory devices and wherein the conductive lines are to be ablated at the site to repair defective memory cells of the devices.

41. (new) The subsystem of claim 32 wherein the microstructures are parts of a semiconductor device.

42. (new) The subsystem of claim 41 wherein the semiconductor device is a microelectromechanical device.

43. (new) The subsystem of claim 41 wherein the semiconductor device is at least one of a silicon semiconductor device and a semiconductor memory.

44. (new) The subsystem of claim 32 wherein the stage is an x-y stage and wherein the means for sorting sorts based on energy expended in a plurality of coils of a plurality of motors in response to motor commands.

45. (new) The sub-system of claim 32 wherein dividing includes identifying a first microstructure subjected to a speed constraint less than a pre-determined maximum processing velocity.

46. (new) The sub-system of claim 32 wherein the motor driven stage is driven at a maximum processing velocity, and wherein a slower processing velocity is the maximum velocity divided by an integer, wherein a substantially constant laser q-rate is maintained.

47. (new) The sub-system of claim 32 wherein the means for dividing includes an algorithm for link sorting.

48. (new) The sub-system of claim 32 further comprising means for positioning the laser beam and the motor-driven stage.